



493200

Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.

U.S. Department of Labor

Occupational Safety and Health Administration
(Non-Mandatory Form)

Form Approved
OMB No. 1218-0072



IDENTITY (as Used on Label and List)
Low Grade Zinc Concentrate

Note: Blank spaces are not permitted. If any item is not applicable or no information is available, the space must be marked to indicate that.

Section I

Manufacturer's name

Paradigm Minerals & Environmental Services

Emergency Telephone Number

949.939.5543

Address (Number, Street, City, State and ZIP Code)

3754 Chemetco Lane

Telephone Number for Information

949.872.2160

Hartford, IL 62048

Date Prepared

January 23, 2014

Signature of Preparer (optional)

Section II—Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity, Common Name(s))

OSHA PEL

ACGIH TLV

Other Limits
Recommended

% (optional)

Material is considered non-hazardous

Zinc

5.0 mg/m3

2.0 mg/m3

Copper

.1 mg/m3

.2 mg/m3

Tin

not established

2.0 mg/m3

Lead

.05 mg/m3

.05 mg/m3

Iron

10.0 mg/m3

5.0 mg/m3

Section III—Physical/Chemical Characteristics

Boiling Point

1200 F - 4000+ F

Specific Gravity (H₂O = 1)as a compound ranges
from 3.97 - 4.01

Vapor Pressure (mm Hg)

mineral compound
not applicable

Melting Point

varies by element, 600
to 2300 F

Vapor Density (AIR = 1)

mineral compound
not applicable

Evaporation Rate (Butyl Acetate = 1)

mineral compound
not applicable

Solubility in Water

only slightly soluble in water at ambient temperatures

Appearance and Odor

- ranges in size from a small particles to aggregates of about 1.25" in size, sharp, coarse, angular material resulting from process of size reduction. Has slight metallic odor with a general but varied color ranging from metallic light grey, dark to black

Section IV—Fire and Explosion Hazard Data

Flash Point (Method Used)

> 200 F

Flammable Limits

LEL

UEL

Extinguishing Media

Special Fire Fighting Procedures

Unusual Fire and Explosion Hazards

metal fires can generate hydrogen gas and compounds

(Reproduce locally)

OSHA 174 Sept. 1985

Section V—Reactivity Data

Stability	Unstable		Conditions to Avoid
	Stable	material is stable	

Incompatibility (*Materials to Avoid*)

Hazardous Decomposition or Byproducts

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur		

Section VI—Health Hazard Data

Route(s) of Entry as a fine particulant	Inhalation? yes	Skin? yes	Ingestion? yes
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Health Hazards (*Acute and Chronic*)

Eye: Minor irritation if exposed to dust. Skin: Dusts can contain skin irritants. Inhalation: Inhalation of dusts can have a cumulative effect on respiratory system, liver, and kidneys. Ingestion: Ingestion of dusts can have a cumulative effect on blood, neurological, and reproduction.

Carcinogenicity	NTP?	IARC Monographs?	OSHA Regulated?
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Signs and Symptoms of Exposure

Medical Conditions

Generally Aggravated by Exposure

Emergency and First Aid Procedures

Eye: Flush with water. If irritation continues, seek medical attention. Skin: Wash skin with soap and water. If irritation continues, seek medical attention. Inhalation: Move to fresh air. If irritation or breathing continues to be affected, seek medical attention. Ingestion: seek medical attention.

Section VII—Precautions for Safe Handling and Use

Steps to Be Taken in Case Material Is Released or Spilled

Shovel or broom sweep into a container and dispose of according to local, state, and federal regulations.

Waste Disposal Method

Shovel or broom sweep into a container and dispose of according to local, state, and federal regulations.

Precautions to Be Taken in Handling and Storing

No special handling or storage requirements. If exposure to dust occurs, please follow instructions from Section VI above.

Other Precautions

Control dust with mist of water to keep damp. In the event of fire, use metal fire practices.

Section VII—Control MeasuresRespiratory Protection (*Specify Type*)

No special protection required unless exposed to fine particulate dust, then use respirator.

Ventilation	Local Exhaust	Special
	Mechanical (<i>General</i>)	Other

Protective Gloves
YesEye Protection
Protective glasses.

Other Protective Clothing or Equipment

Work/Hygienic Practices

Wash hands and clothing with soap and water. No eating, drinking, or smoking while handling products.